DEPRESSIVE SYMPTOMATOLOGY IN CHILDREN WITH AND WITHOUT LEARNING DIFFICULTIES

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ABSTRACT

Though depression in children has received attention in psychological research, the study of depression in special populations has been sadly neglected. Research has indicated that although depression in children is analogous to adult depression it is expressed in different ways. Comparative studies on children with learning difficulties and children in regular educational programmes report higher levels of depressive symptomatology in the former group. This study investigated depressive symptomatology in Indian children in the age range 8 to 11 at two schools in Durban, South Africa. Levels of depressive symptomatology in 84 children (41 boys and 43 girls) with learning difficulties in a remedial education programme were compared with those of 116 children (57 boys and 59 girls) from the regular education programme. The children with learning difficulties were placed in self-contained classroom units after being psychometrically assessed. The assessment focused mainly on cognitive functioning with little regard for the affective domain. The Children's Depression Inventory (CDI) (Kovacs, 1992) was administered to all the children in the study. Two separate one way anovas were used to analyse the raw score data for: 1) levels of depressive symptomatology in children with and without learning difficulties, and 2) age differences in depressive symptomatology in children with learning difficulties. The chi-square test of significance was used to investigate gender differences in depressive symptomatology in children with learning difficulties. Children with learning difficulties displayed significantly higher levels of depressive symptomatology than children in the regular education programme. The children with learning difficulties obtained a mean score that implies that they are mildly depressed. There were no statistically significant age and gender differences. However, an age trend was noted in that younger children displayed higher levels of depressive symptomatology than older children. These findings are similar to those of other authors (Hall and Haws, 1989; Wright-Strawderman and Watson, 1992). Implications of these results

are discussed in terms of the relationship between depression and learning difficulties; the assessment of children with learning difficulties; the role of school psychologists and teachers; and the treatment of depressive symptomatology in children with learning difficulties.

In loving memory of my late mother who passed away on 24 November 1996.

Her dedication,devotion and guidance have been inspirational.

May her soul rest in peace.

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DECLARATION

The author hereby declares that the entire thesis, unless otherwise indicated to the contrary, is his own work.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

For years it was believed that a child's level of emotional and cognitive development made it difficult for a child to express feelings of depression (Harrington, 1990). This belief may stem from the Piagetian view that during the concrete operational stage, (age 7 to 11), children may find it difficult in dealing with abstract thinking (Biehler and Snowman, 1990) and may find it difficult to verbalize feelings of depression. It is possible therefore that "*depression in youngsters (*is*) one of the most overlooked and undertreated psychopathologies of childhood and adolescence*" (Reynolds, 1990: 158).

This premise has serious implications for the child's mental and educational well-being. Educators may have overlooked depression as a possible cause for academic underachievement or failure although studies (i.e. Cole, 1990; Lefkowitz and Tesiny, 1985) have suggested a possible association. Educators, in their endeavour to help the child, may misdirect their efforts and consequently compound the child's problem.

While acknowledging the existence of depression in children, early writers such as Toolan (1962), Rie (1966), and Glaser (1967) either discouraged the evaluation of depression or suggested that its presence would be diffuse or difficult to detect (Kazdin, 1990). Rie (1966), writing from a psychoanalytic perspective, declared that depression as a disorder cannot emerge until adolescence. Toolan (1962) and Glaser (1967) introduced the terms "*depressive equivalents*" and "*masked depression*", respectively, to describe depressive symptomatology when it occurred in children. These terms suggest that children are not able to show overt signs of depression and that depressive symptoms are hidden by other conditions.

1.2 Current Views of Depression in Children

More recently, there is some contention that childhood depression manifests itself in the same way as adult depression (Kovacs and Beck, 1977; Kazdin, 1990; Reynolds, 1994). However, depression in children may be also expressed in different ways; for example, poor school performance (Hollon, 1970) and enuresis (Weinberg, Rutman, Sullivan, Penick and Dietz, 1973) are symptoms that are seen as unique to children.

1.3 Prevalence Estimates of Depression in Children

Considerable information currently exists on childhood depression. Hollon (1970) in reviewing four cases of children that were referred for psychological testing concluded that depression was the source of their school failure. Kolvin, Berney and Bhate (1984) reported that 45 % of fifty-one children treated for school phobia at a child psychiatric clinic were significantly depressed. Weinberg et al. (1973) established depressive symptomatology to be present in forty-five of the seventy-two prepubertal children referred to an educational diagnostic centre with poor school performance or behaviour problems or both. These and other researchers (Lefkowitz and Tesiny, 1985; Brumbach, Jackoway and Weinberg, 1980; and Flemming, Offord and Boyle, 1989) have estimated that the number of children with depressive symptomatology attending regular classes ranges between 2 % and 50 % . These estimates are however, dependent on the population being studied, i.e. clinical or non-clinical (Semrud-Clikeman and Hynd, 1991).

1.4 Depression and School Achievement

There is a growing body of literature indicating that depression is related to school achievement. Impaired school performance (Reynolds, 1990), social and academic incompetence (Cole, 1990; Blechman, McEnroe, Carella, and Audette, 1986), pre-existing

reading and arithmetic difficulties (Kashani, Cantwell, Shekim, and Reid, 1982), underachievement in maths and general knowledge (Hodges and Plow, 1990), low reading scores (Lefkowitz and Tesiny, 1985) and impaired performance on some cognitive tasks (Kaslow, Rehm, and Siegel, 1984), were found to correlate significantly with depression. Many of these findings also characterize children with learning difficulties. It is possible therefore that depression and learning difficulties are associated.

According to Colbert, Newman, Ney and Young (1982) depression results in diminished psychic energy for learning. One will find it difficult to concentrate thereby diminishing ones capacity to learn. Once ones capacity for learning is diminished it will lead to poor retention. "*Poor retention of ideas leads to limited comprehension and limited vocabulary - with limited powers of expression both oral and written*" (Montgomery, 1990: 11). These characteristics are frequently noted in children with learning difficulties, and are often attributed to intellectual or neurological factors rather than affective factors.

1.5 Depression and Learning Difficulties

Children with learning difficulties being in an academically challenging area, for example the classroom, may have a particularly difficult time in coping with academic pressures. It would not be uncommon therefore, for them to experience some kind of psychological setback (Goldstein and Dundon, 1987). Some studies indicate support for Goldstein and Dundon's, (1987) view and have shown a possible link between depression and learning difficulties. For example, Goldstein, Paul and Sanfilippo-Cohn (1985) reported that 61 % of their sample of eighty-five learning disabled children met the criteria (CDI) for mild depression and 26 % for severe depression. They concluded that "*learning disabled children are more depressed than non-disabled children from comparable backgrounds* " (p. 269). Wright-Strawderman and

Watson (1992), in a study of fifty-three learning disabled children (age 8 to 11), found 35.85 % to have depressive symptoms. Hall and Haws (1989) reported findings of 24 % of learning disabled and 2 % of non-learning disabled children indicating depressive symptomatology. Other investigators have indicated similar results (Stevenson and Romney, 1984; Colbert et al. 1982).

The reported prevalence rates of depression in children with learning difficulties vary considerably. Two possibilities may account for such differences. Firstly, in the absence of a definite yardstick for the identification of childhood depression researchers may have employed differing criteria to assess depression. Secondly, psychometric procedures to measure severity of depression have varied across studies. Procedures have included self-, parent-, peer-, and teacher reports. Variation in reliability and validity of these measures may contribute to conflicting results (Schloss, Sher, and Wisniewski, 1994).

1.6 Current Status in the field of Depression and Learning difficulties

There is a dearth of research linking depression to learning difficulties. Goldstein and Dundon (1987) have suggested two possible reasons for the paucity of research in the field of depression and learning difficulties.

Firstly, they suggest that "*one possible reason for the exclusion of emotional factors may be the absence of a framework within which one can meaningfully view the role of affect in learning disabilities*" (p. 235). Though some studies,(e.g. Colbert et al., 1982; Hall and Haws, 1989; Wright-Strawderman and Watson, 1992) have shown a correlation between depression and learning difficulties there is no consensus as to how these concepts operate or interlink. Stevenson and Romney (1984) consider depression to be a consequence of learning

difficulties whereas Colbert et al. (1982) and Brumbach and Staton (1983) consider learning difficulties to be a consequence of depression.

Secondly, Goldstein and Dundon (1987) maintain that:

> *Nowhere is the exclusion of affect from the literature on learning disabilities more marked than in the various definitions of learning disabilities adopted in recent years. The most widely cited definition, contained in PL 94-142, excludes from the category, 'learning disabled' children whose school learning problems are due primarily to emotional disturbance* (p. 234).

Hammill (1990), in his review of eleven definitions on learning difficulties that had been used or were currently in use, states that only one (Kirk, 1963) included emotional disturbance as a criterion for the identification of learning difficulties in children. It is possible therefore that due to the exclusion of affect from the various definitions on learning difficulties that most researchers have ignored or failed to consider the link between depression and learning difficulties.

Numerous studies have indicated a possible correlation between depression and poor school performance or under-achievement (See 1.3 and 1.4). Implicitly, a relationship between learning difficulties and depression exists because under-achievement (Hammill, 1990) is a criterion for learning difficulties.

Whilst there are numerous studies of depression in general school populations there is a paucity of research in special school populations (e.g. children with learning difficulties). The scant and sometimes conflicting findings in the current research on depressive

symptomatology in children with learning difficulties warrants further investigation. Research is needed to support, (Wright-Strawderman and Watson, 1992), or refute (Stevenson and Romney, 1984) the hypothesis that depression and learning difficulties in children are linked.

Support for this hypothesis may suggest that some children may be mis-diagnosed (Colbert, et al., 1982) as having learning difficulties. Therefore remedial help may be counter productive in that the child is put under more pressure to perform which may result in the child becoming more depressed. Some children may be able to overcome their learning difficulties when treated for depression (Livingston, 1985) and hence not require remedial assistance.

Notwithstanding the above views, it has been accepted that major depressive disorder (MDD); a depressive disorder most frequently diagnosed in children, is a valid, treatable, diagnosis for children (Livingston, 1985; Reynolds, 1990). However, many cases of depression may go undetected in schools, consequently increasing the child's feelings of helplessness and worthlessness. These feelings may perpetuate school failure which in turn may be misconstrued as a learning difficulty.

1.7 Identification of Depression in Children with Learning Difficulties

In spite of a growing body of evidence suggesting the presence of depressive symptomatology in children with learning difficulties there is little evidence of attempts made to use this information proactively. Although Brumbach and Staton (1983) have suggested that children with learning difficulties should be routinely assessed for depression, educators have virtually ignored depression as a condition of learning difficulties (Maag and Behrens, 1989).

Furthermore, Hall and Haws (1989: 359) have suggested that "*based on the criteria for learning disabilities (a significant discrepancy between a child's ability and actual level of performance) one would assume that depressed children could be identified as learning disabled on the basis of this discrepancy* " (p 359). It is therefore possible that depressed children may be misdiagnosed as learning disabled (Colbert et al, 1982).

The identification of depressive symptomatology in children with learning difficulties may not be an easy task for the educator. Firstly, depression in children is an insidious disorder that often goes unrecognised or is mistaken for other problem behaviours (Reynolds 1994). Therefore, depressive symptomatology may be difficult to detect in children with learning difficulties. Secondly, educators of children with learning difficulties are not trained to identify affective conditions such as depression and consequently fail to conceptualise learning difficulties in affective terms.

1.8 Purpose of this Study

The purpose of this study is to establish the incidence of depression among children with and without learning difficulties in two schools, and to determine the relationship of depressive symptomatology in children with learning difficulties to gender and age differences. The aim of this study is to provide information on the possible scope of depressive symptomatology in children with learning difficulties and to raise issues with regard to the implications it may have for their mental health and academic functioning; their assessment and placement; and their educational provision.

Chapter Two will review some of the literature in the field of childhood depression and learning difficulties from both theoretical and research perspectives. The design and methodological issues will be presented in Chapter Three. Chapter Four will be the presentation of the results. Chapters Five and Six will deal with discussion of findings and conclusion respectively.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

2.1 Introduction

Children with learning difficulties and children who report depressive symptomatology share many similar symptoms namely, poor school performance, low self-esteem, an inability to perform cognitive tasks adequately, and negative self perceptions. These similarities have been investigated by some studies and the findings suggest that learning difficulties and depression are inextricably linked. This link however, has been a point of contention. Some studies suggest that depression is primary to learning difficulties (e.g. Colbert et al., 1982) while others have suggested that learning difficulties is the primary condition (e.g. Hall and Haws, 1989). It is sufficient to say that the conditions are associated and affect the child profoundly.

This chapter reviews some of the relevant studies and pertinent issues in the fields of childhood depression and learning difficulties. Of note is that both fields have parallel histories in that they gained prominence in the 1960's and research accelerated during the 1970's. They share similar controversies with regards to their definitions and classifications.

While there are many studies in the areas of childhood depression and learning difficulties, researchers have elected to study them independently of each other. This is despite overwhelming evidence indicating a possible link between depression and school problems. This approach to research has led to the absence of an understanding of how learning difficulties and depression inter-relate. An understanding of the association between the two concepts may lead to the establishment of a theoretical framework which is urgently needed in order to provide the necessary impetus for further research.

For ease of reference issues relating to depression and learning difficulties will be dealt with separately in this chapter.

2.2 Depression

2.2.1 Historical perspectives on depression

Although childhood depression as a phenomenon was acknowledged by some writers (e.g. Spitz, 1946) very little research was conducted in this field. Spitz (1946) provided the notion of anaclitic depression and Melanie Klein (1949) stated that normal infants go through a depressive stage. Despite this early acknowledgement of childhood depression the focus of attention prior to the 1960's was largely on adult populations. Schulterbrandt and Raskin (1977: vii) state that *"difficulties in diagnosing depression in children or in operationally defining the symptoms of depression in children have been cited as major obstacles to clinical investigations in this field"* .

In the early 1960's a conflicting and a confusing picture of childhood depression began to appear. Issues relating to the presentation and expression of depressive symptomatology among children were viewed sceptically by some authors, (e.g. Rie, 1966), whereas others, (e.g. Toolan, 1962; Glaser, 1967), viewed depression as being camouflaged in children. It was also suggested that children did not have the necessary descriptors and cognitions to express their feeling of depression (Semrud-Clikeman and Hynd, 1991).

Rie (1966) said that depression can only emerge as a discrete phenomenon during the adolescent period. He felt that children do not have sufficiently mature super-ego structures to develop depressive symptomatology. Depression was seen as the outcome of a persecutory

super-ego. This view was in contradiction to the theories of earlier psychoanalysts (e.g. Spitz, 1946 and Klein, 1949) who supported the notion of childhood depression.

Toolan (1962) described "*depressive equivalents*" in children and maintained that depression in children manifested itself in different ways to adults. He suggested that depressive symptomatology was camouflaged by symptoms such as truancy, disobedience and temper tantrums.

The term "*masked depression*" was coined by Glaser (1967). He wrote that "*in the child and adolescent, depression is often not recognised as such because it may be hidden by symptoms not readily identified with this condition*" (p. 565). He viewed depressive reactions in children to be different from adult reactions. He noted that poor school performance may be a way of masking depression.

The term "masked depression" may be spurious. Kovacs and Beck (1977) suggest that for a diagnosis of masked depression to be made depressive symptoms must first be observed. Given the definition of masked depression adopted by Glaser (1967) almost any condition observed in children could fit this description (Angold, 1988). Also, in contrast to Glaser's (1967) view, Carlson and Cantwell (1980) reported that children with depression showed overt depressive symptoms such as depressive mood and vegetative signs. They concluded that depression in children can be "*unmasked*" through systemic interviewing.

In the early 1970's writers began to conceptualise childhood depression in similar ways to adult depression. This view has found acclaim among many writers e.g. Weinberg et al., 1973; Kovacs and Beck, 1977; Kazdin, 1990; and Reynolds, 1994. However, developmental

differences, such as poor school performance and enuresis, have been acknowledged in the expression of depressive symptoms in children.

2.2.2 Definition of depression

The term depression presents great semantic ambiguity. It has been used to describe a state, a trait, a symptom, an affect, a mood, a syndrome, and a disorder. It is to be expected that a fair amount of confusion may arise from its use.

2.2.2.1 Depression as a symptom

Kazdin (1990: 121) states that "*depression* (as a symptom) *refers to sad affect and as such is a common experience of everyday life*" . Its intensity may occur in varying degrees and can be an ancillary complication in an array of mental or physical disorders (Gittelman-Klein, 1977). It can refer to a state of feeling "blue" or "down in the dumps". Sad, low mood is a characteristic of several childhood disorders and is notably typical in normal children (Angold, 1988) and therefore sad mood alone may be inadequate for a diagnosis of depression.

2.2.2.2 Depression as a syndrome

Depression as a syndrome refers to a array of symptoms that are related. It "*typically affects multiple areas of personal functioning including behavioral, emotional, somatic and cognitive domains*" (Reynolds, 1990: 158). Sadness may be part of this constellation of symptoms. Other symptoms may include loss of appetite, feelings of worthlessness, sleep disturbances and loss of interest in activities, see DSM IV (APA,1994).

2.2.3 Classification of childhood depression

Prior to the 1970's it was felt that depression in children was non existent or "masked" by other conditions (see Rie, 1966; Toolan, 1962; Glaser, 1967; and Hollon, 1970). Thus child specific criteria did not emerge until roughly 16 years ago.

Perhaps the earliest classification of childhood depression is what is typically referred to as the "Weinberg Criteria" . Weinberg et al., (1973: 1066) proposed the following criteria for the diagnosis of depressive symptomatology in children:

Table A: Weinberg Criteria for a Diagnosis of Depression

A. The presence of both symptoms I and II
I. Dysphoric mood
II. Self-deprecatory ideation
B. Two or more of the following eight symptoms:
III. Aggressive behaviour (agitation)
IV. Sleep disturbance
V. A change in school performance
VI. Diminished socialization
VII. Change in attitude towards school
VIII. Somatic illness
IX. Loss of usual energy
X. Unusual change in appetite and/or weight
C. These symptoms had to represent a change in the child's usual behaviour.
D. These symptoms had to be present for a period of more than one month.

For a diagnosis of depression both dysphoric mood and self-deprecatory ideation had to be present as well as two of the eight symptoms mentioned above. These criteria are similar to adult presentation of depressive symptoms with two notable exceptions namely, change in attitude to school and a change in school performance. However, these criteria seemed somewhat broad because they could be applied to other conditions as well. For example, Carlson and Cantwell, (1980) reported that these criteria could also be applied to behaviour disorders.

Possibly the suggestion by many writers (e.g. Kovacs and Beck, 1977) that childhood depression paralleled adult depression in its presentation led to an abandonment in the search for child specific criteria. Currently, the criteria published by the American Psychiatric Association DSM IV (APA, 1994) are widely used in the diagnosis of depression in children - it must be noted that these criteria are based on adult descriptors of depression.

For a diagnosis of depression, five or more of the symptoms listed in Table B below have to be present during the same two week period. In addition to this at least one of the symptoms must be (a) depressed mood, or (b) loss of interest or pleasure.

An unmodified application of these criteria to children may lead to discrepancies in the diagnosis of depression in children. Although many writers in the field of childhood depression allude to developmental differences in the presentation of depressive symptomatology in children, the DSM IV (APA, 1994) criteria fails to account for such differences. There is therefore an urgent need to develop child specific criteria for an accurate description and diagnosis of childhood depression.

A summary of the DSM IV criteria for depression -Major Episode (see DSM IV, 1994: 327) is presented in the table below.

Table B: DSM IV Criteria for a Diagnosis of Depression- Major Episode

a) depressed mood for most of the day (in children and adolescents, can be irritable mood.
b) markedly diminished interest or pleasure in all, or almost all activities most of the day.
c) significant weight loss or gain, or decrease or increase in appetite (in children, failure to make expected weight gains).
d) insomnia or hypersomnia.
e) psychomotor agitation or retardation.
f) fatigue or loss of energy.
g) feelings of worthlessness or excessive or inappropriate guilt.
h) diminished ability to think or concentrate, or indecisiveness.
i) recurrent thoughts of death, recurrent ideation, or a suicide attempt or a specific plan for. committing suicide.

2.2.4 Assessment of childhood depression

Several methods for assessing depression in children have been developed over the years. Among these are self-; peer-; parent-; and teacher- report scales as well as structured and semi structured clinical interview schedules. Self-reports and clinical interviews are the most frequently used methods of assessment (Kazdin and Petti, 1982).

According to Kazdin (1990: 122) "S*elf-report is particularly important in assessing depression, given that key symptoms such as sadness, feelings of worthlessness, and loss of interest in activities reflect subject feelings and self-perceptions*" . This view is supported by Reynolds (1990) who maintains that children are viable reporters of their symptoms.

Several self-report measures have been developed over the years e.g. Children's Depression Inventory (CDI), Kovacs (1981) - (reviewed in chapter three) and Self-Rating Scale (Birleson, 1981). These scales can be used for children from age 7-17 and 7-13 respectively.

Interviews can be a useful way of obtaining information and "*can be conducted with the child, either or both parents or a teacher*" (Semrud-Clikeman, 1990: 288). Structured and semi- structured interviews are more reliable than unstructured interviews (Birleson, 1981) because interviewer bias may be eliminated to some extent. There are several structured and semi- structured clinical rating scales. (For reviews on these and self- report scales see: Semrud-Clikeman, 1990; Kazdin, 1990; Kazdin and Petti, 1982; Reynolds, 1990; Semrud-Clikeman and Hynd, 1991).

Self-report and interview methods rely on the ability of the child to express and evaluate his or her symptoms of depression accurately. In younger children interviews may be a more reliable method of assessing depression. The interviewer can be sensitive to the child's expression and use of language in portraying symptomatology. Although reliable, the interview can be time consuming and is not a viable method for epidemiological studies or studies that entail large samples.

While self reports may pose a problem for the younger child in that he or she may not be able to read or comprehend the statements on the questionnaire, this method of assessment is useful in studying large samples. To overcome the problem of comprehension and to cater for the child's special needs *"many self- report inventories are routinely presented orally by the clinician to ensure the child's comprehension of both the questions and response alternatives"* (Kazdin and Petti, 1982: 437).

2.3 Learning Difficulties

2.3.1 Historical perspectives on learning difficulties

The field of learning difficulties did not gain prominence until the 1960's. Hallahan and Kauffman (1976: 2) claim that the field has had a *"unique evolution* (in that) *the early identification of children was done initially by medical personnel and not by school educators"* . Thus most of the initial models of children with learning difficulties were based on the disease model of medicine (Bryan and Bryan, 1978). It would seem therefore that these children were conceptualised as handicapped or disabled.

According to Shapiro (1979) research was scant during the formative years (1939 to 1960) of the notion of learning difficulties and therefore learning difficulties in children did not emerge as an autonomous field within education. Goldstein's 1936 and 1939 studies (cited in Shapiro, 1979) were perhaps the earliest identification of learning difficulties. His work on brain injured soldiers demonstrated lack of abstract thinking, perseveration, concrete behaviour and figure ground confusion.

Similarly, Werner and Strauss (1939 - cited in Shapiro, 1979) replicated Goldstein's findings on brain injured children. Consequently, prior to the 1960's, *"learning disabilities as a*

diagnostic entity had not been differentiated from brain injury" (Kasik, Sabatino and Spoentgen, 1987: 267). This gave credence to the medical model of learning difficulties.

In the early 1960's there was a resurgence of interest in children of average intelligence with learning problems. Professional literature began to emerge reflecting this resurgent interest (Hallahan and Kauffman, 1976). Parents began to take an active role by demanding more educational heed for their children who were experiencing problems and therefore they sponsored the first conference in 1963 *"to examine and explore the problems of the perceptually handicapped"* Schapiro (1979: 51).

The term "learning disabilities" was first introduced in this context at this conference by Kirk in 1963 (cited in Schapiro, 1979) and it was subsequently adopted. This conference also saw the formation of "The Association for Children with Learning Disabilities" (ACLD). This formally confirmed this new field of special education (Hallahan and Kauffman, 1976). Hallahan and Kauffman (1976: 12) also noted that *"this zeal to create a separate category with no conceptual ties to other areas has been the primary factor in the rampant confusion regarding the definition of learning difficulties"*.

2.3.2 Definition of learning difficulties

The area of learning difficulties is fraught with controversy with disagreement over terminology and definition. The terms "learning disabilities", "learning difficulties", "minimal brain injury", "minimal brain dysfunction", "psychoneurological learning disabilities", "perceptual disabilities", "specific learning disabilities", "educational handicaps", and "underachievement" have been used synonymously (Hallahan and Kauffman, 1976). Despite the lack of consensus about the terminology and/or definition of

learning difficulties nearly all definitions cite difficulty with some aspect of information processing as a cause of learning problems.

The term "learning disability" was first introduced by Kirk (1963). He defined it as

> *a retardation, disorder, or delayed development in one or more of the processes of speech, language, reading, writing, arithmetic, or other school subjects resulting from a psychological handicap caused by a possible cerebral dysfunction and/ or emotional or behavioral disturbances. It is not a result of mental retardation, sensory deprivation, or cultural and instructional factors* (cited in Hammill, 1990: 75).

Of note in this definition is the notion of disability caused by emotional and/or behavioural disturbances implying affect or "masked affect" as a cause of learning difficulties. However, this notion was dropped from subsequent definitions.

Hammill (1990: 74) in his review of the various definitions stated that "*currently, learning disabilities seem to be defined in conceptual terms*" i.e. in terms that describe the condition theoretically. Whilst theoretical conceptualizations are necessary, the lack of a functional or operational definition make it that much more difficult to identify or diagnose the condition. The adverse effects of this were noted by Adelman (1989) in that the field could not clearly distinguish children with learning difficulties from those with other learning conditions.

The definition of the term is still a moot issue. Shaw, Cullen, McGuire and Brinckerhoff (1995: 586) state that "*despite more than 25 years of discussion, the learning disability (LD) field continues to want for an operational definition*" . The lack of an operational definition is

probably the reason for the widespread confusion among professionals and lay people as to what constitutes a learning difficulty or who is learning disabled. This has various implications for the identification of the condition, the teaching of the child with learning difficulties and the implementation of policy regarding learning difficulties.

Notwithstanding the confusion in the field, The National Joint Committee on Learning Disabilities (NJCLD) definition has won favour among professionals (Hammill, 1990; Shaw et al., 1995). The committee first proposed a definition in 1988 and later revised it in 1994. The following is its definition:

> *Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g., sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g., cultural differences, insufficient/ inappropriate instruction, psychogenic factors), it is not the result of those conditions or influences* (cited in Shaw et al., 1995: 587).

2.3.3 Classification of learning difficulties

The classification of pupils with learning difficulties is as controversial as the definitions cited above. Various definitions in the course of its history and the want of an operational

definition have made classification a contentious task. Hammill (1990) in his review of definitions has identified nine elements that are common to most of the definitions. He states that these elements can be used in the classification of learning difficulties:

The nine elements are listed in the table below:

Table C: Hammill's Criteria for the Classification of Learning Difficulties

a) Underachievement - a discrepancy exists between potential and performance.
b) CNS Dysfunction - this is proposed as an etiological issue.
c) Process Disruption - psychological processes are disturbed.
d) Being Present Throughout the Life Span - not specific to children only.
e) Specification of Spoken Language Problems - problems involving listening and speaking.
f) Specification of Academic Problems - problems involving reading, writing, spelling, or maths.
g) Specification of Conceptual Problems - problems involving thinking and reasoning.
h) Specification of Other Conditions - problems associated with social skill, spatial orientation, integration, or motor abilities.
i) Allowance for the Multihandicapping Nature of Learning Disabilities -learning disabilities can co-exist with mental retardation, emotional disturbance, sensory and motor impairment.

Hammill (1990) has stated that the last two criteria (i.e., h and i) are debatable. Some authors believe that learning difficulties can co-exist with other handicapping conditions whilst others believe that they should be excluded in a diagnosis of learning difficulties.

It would seem then for a diagnosis of learning difficulties, condition (a) underachievement and one or more of (e), (f) and/ or (g) must be present.

2.3.4 Assessment of children with learning difficulties

The assessment and identification of children with learning difficulties is a complex and controversial issue. Assessment procedures vary considerably among educational psychologists, special education teachers and the different education departments worldwide. The quandary surrounding assessment procedures stem from firstly, the confusion over termnilogy and secondly, the application of various definitions to learning difficulties.

The assessment procedures outlined below are procedures adopted by the Ex-House of Delegates schools (according to the principals of the schools involved in this study).

The assessment of children with learning difficulties have been for most part undertaken by the state (the providers of special education services) and the school (the providers of the education). The focus in schools is primarily on ability and underachievement in the basic subjects i.e. language and mathematics. Therefore, the assessment of children with learning difficulties is based on intellegence test scores (to assess potential) and tests of language, reading and/ or mathematics (to assess achievement). Assessments are done by the school psychologist (formal, standardised tests e.g. intelligence tests, perceptual-motor skills tests, and tests of reading and maths skills) and, sometimes, by the remedial teacher (informal inventories of reading and maths). Where severe discrepancies exist between potential and achievement the child is recommended for remedial education.

In the assessment of children with learning difficulties the emphasis is on academic potential. Assessment of the social and/or emotional development of the child is either ignored or neglected. This neglect may impact on the child's emotional well-being. For example, the child who has an affective condition may be placed erroneously in a class for the learning

disabled. This may further compound his or her affective condition, leading to poorer educational outcomes. It is essential therefore that both the affective and academic domains are assessed before placement decisions are made about child.

2.3.5 Provision of remedial education

The provision of remedial education varies across the different education departments. There are different models for the provision of remedial help however, it is beyond the scope of this study to describe them. The models presented below are the models adopted by the Ex-House of Delegates schools.

The child with learning difficulties may receive remedial help in of one of two ways i.e. either in a self contained classroom or in a resource/ withdrawal programme.

A self contained classroom is an "*educational environment* (where) *children with similar problems in learning, usually close in age, are assembled together for instruction and remediation with a special educator*" (Gottlieb, 1979: 238). In this programme, the child spends the entire day in a remedial classroom. Advocates of this type of programme feel that the child may profit more by receiving specialized instruction for the entire day.

A resource/ withdrawal programme "*typically refers to placement in general education classes, with some time spent in a separate resource room placement.*" (Bender, Vail and Scott, 1995: 87). This programme is sometimes referred to as mainstreaming. Children spend most of their time in a regular classroom but are "withdrawn" by the remedial teacher either individually or in small groups of up to four.

Both programmes are not without their controversies. According to Gottlieb (1979: 238) the self- contained classroom has been criticized "*because it educationally and socially isolates the child*". In contrast Bender et al. (1995) found that teachers have negative reactions to mainstreaming.

Children who receive remedial help have multifarious problems. The stigma of having a label suggests that he or she is different from their peers. Studies (e.g. Bryan, 1974; 1976) have indicated that children with learning difficulties are less accepted than their non disabled peers. This view was supported by Bursuck (1989), who when comparing learning disabled children to low achievers, found learning disabled children to be less accepted by both peers and teachers.

Being less accepted and/ or negatively viewed by teachers and peers may cause the disintegration of the learning disabled child's self-esteem. The child may have poor self-perception and feelings of little worth. These factors are precursors to depression (Seligman, 1975; Beck, 1976).

2.4 Depression, Learning Difficulties and Self Perception

Studies have indicated that depressed children and children with learning difficulties share similar self-perceptions. Worchel, Little and Alcala (1990) studied self perceptions of cognitive abilities in 360 public school children and found that depressed children were more likely than non-depressed children to have more negative self ratings and to compare themselves more unfavourably with others.

Similar findings have been reported in studies with children with learning difficulties. La Greca and Stone (1990) report that children with learning difficulties have more negative self ratings than children without learning difficulties.

2.5 Gender and Age Differences of Depression and Learning Difficulties

In terms of gender differences, depression is more common among females than males in adult populations (Kazdin, 1990). Studies among normal children in the general population report conflicting results. Lefkowitz and Tesiny (1985) found no sex differences but commented about rates approaching significance among females. In contrast Anderson, Williams, McGhee and Silva (1987) reported a male/female ratio of 5,4:1 among prepubertal children. Studies among children with learning difficulties report no significant gender differences (Hall and Haws, 1990; Wright-Strawderman and Watson, 1992).

In many of the studies reviewed there were no significant age differences among children in general populations. Lefkowitz and Tesiny (1985) noted however, that the percentage of boys manifesting severe depression decreased with age whereas for girls this percentage increased. Kaslow et al. (1984) found no significant age differences with regards to depression. They hypothesized that "*by about age 7 (first grade), most, if not all, children possess the basic cognitive processes commonly associated with, and necessary to depression; thus, age differences might be expected to show up in more subtle ways that in global scores*" (p. 618). Studies among children with learning difficulties reported no significant age differences with regards to the incidence of depressive symptomatology.

2.6 Psychological Models of Depression in Children with Learning Difficulties

2.6.1 Introduction

The application of current psychological models of depression to children with learning difficulties has been neglected in the literature. While studies have shown a possible link between depression and learning difficulties, researchers have failed to conceptualise this link in terms of existing theories of depression. Although scant information currently exists on theories of depression and its application to children with learning difficulties, several inferences can be made from related literature.

There may be several contributory factors to the onset, development, and maintenance of depression in children with learning difficulties. These factors will be examined in relation to three theories of depression namely, social learning theory, cognitive theory, and learned helplessness theory.

2.6.2 Social learning theory of depression

Lewinsohn (1974) postulated a theory of depression based on deficits in social skills and activity levels. This theory suggests that loss or decrease of reinforcement from the environment leads to depression. It is possible that the depressed person's inadequate levels of social skills would affect their social interactions. "*Social interactions are a central source of positive reinforcement that have been reduced in depressed persons*" (Kazdin, 1990: 141).

The loss of positive reinforcement has been considered as an antecedent to the onset of depression (Schloss, Sher, and Wisnieski, 1994). Depressed persons are not able to elicit positive reinforcement from others because they do not have the necessary social skills for a positive reciprocal social interaction. Consequently, "*social skills deficits are viewed as*

causative in eliciting a depressogenic pattern of reinforcement" (Kaslow, Brown, and Mee, 1994: 98).

Social skills deficits evident in depressed adults have also been demonstrated in children with learning difficulties (Pearl, 1987; Carlson, 1987; La Greca and Stone, 1990).

The lack of social competence among children with learning difficulties has been demonstrated by Pearl, Donahue, and Bryan, 1987 (cited in Pearl, 1987). In a study of childrens tactfulness (the ability of dealing with others without offending them), Pearl et al. (1987) found that children with learning difficulties were less tactful than non-disabled children. This finding suggests that children with learning difficulties may not have the necessary skills for satisfactory social interactions.

Carlson (1987) has suggested that children with learning difficulties are at risk for poor interpersonal relationships because these children have lower levels of social competence than their non-disabled classmates. Carlson (1987) has stated that it is the personal style, i.e. non-assertive or powerless orientation, of the learning disabled child that leads to poor social interactions or status. This "personal style" is also evident in depressed adults.

Further, Bryan (1974; 1976) reports that the poor status of learning disabled children remains constant for at least two years. During this time, it can be inferred, the child with learning difficulties may elicit depressogenic reinforcements from his or her environment (school, teacher, and peers) thereby perpetuating a state of depression.

Studies have indicated children with learning difficulties are viewed by their teachers and non-disabled peers as lacking in social skills and being depressed.

Hatzichristou and Hopf (1993: 52) in studying teacher perceptions of learning disabled children reported that

> *teachers evaluated learning disabled children as having deficits in comparison to their non-disabled classmates not only in academic task related behaviour, but also in interpersonal skills (i.e. quarrels often, etc) and in intrapersonal-psychological aspects of behaviour (i.e. isolated, unhappy/depressed).*

Blechman et al. (1986) established that children who lacked academic and social skills received the highest ratings of peer nominated depression. One can infer from these findings that children who achieve normally link poor academic and social skills to depression in other children. This view is supported by the findings of the same study that, on a self report measure of depression, more clinically depressed children were identified among children with academic and social incompetencies. This study suggests a relationship between poor academic and social skills and depression.

La Greca and Stone (1990: 487) reported that children with learning difficulties have "*lower peer acceptance, fewer positive nominations, lower feelings of self-worth, and more negative self-perceptions regarding social acceptance*" .

The studies cited (i.e. Hatzichristou and Hopf, 1993; Blechman et al., 1986 and La Greca & Stone 1990) suggest that children with learning difficulties are likely to be perceived less favourably by teachers (Tur-Kaspa and Bryan, 1995) and peers (Bursack, 1989) thereby

becoming more socially isolated and depressed. Also, these children are viewed by themselves and significant others as being less socially adept.

Consequently, they experience fewer social interactions (Schloss et al., 1994) and therefore fewer positive reinforcements encouraging the development of adequate social skills. The paucity of social skills in children with learning difficulties is analogous with the social skills deficits of adult depressives (La Greca and Stone, 1990). One can infer from the studies reviewed that social learning theories of depression can be applied to children with learning difficulties.

2.6.3 Cognitive theory of depression

The cognitive theory of depression was postulated by Beck (1976). This theory posits the onset of depression is dependent on one's developmental history. Persons who are prone to depression often structure their schemata on negative cognitive distortions based on previous negative experiences. *"These distorted cognitions continue, despite independent or disconfirming evidence to the contrary"* (Semrud-Clikeman, 1990: 281).

According to Beck (1976) these negative distortions are structured around a cognitive triad. The depressed person has pervading negative attitudes towards himself, towards the outside world, and towards his or her future.

1. View of self : the depressed person views himself as deficient, inadequate, and unworthy. This results in *"low self-esteem, a negative self-evaluation, increased self-criticism, and underestimation of one's abilities"* (Kaslow et al., 1994: 98).

2. View of the world : the depressed person views the world as presenting obstacles that cannot be overcome. Explanations for events or situations are in negatively biased distortions.

3. View of the future : current difficult experiences are expected to continue indefinitely. This view identifies with the development of hopelessness.

Although Beck's cognitive theory was based on adult depression, research on children has reported similar findings. In affirming Beck's cognitive triad, Worchel et al. (1990) reported that depressed children, in relation to non-depressed children, appeared to have negative views of their current as well as their future abilities on cognitive tasks despite parallel task performance. Similarly, Geisthardt and Munsch (1996) reported that adolescents with learning difficulties used cognitive avoidance with regard to coping with academic problems.

According to this model of depression, poor self-concept and negative self evaluation are considered a central factor in the development and maintenance of depression. Lower self-esteem levels are reported among children who are depressed (Kaslow et al., 1994). Comparable findings have been reported in children with learning difficulties.

Patten (1983), in a study of the relationship between self-esteem, anxiety, and achievement in young learning disabled children, stated that children with learning difficulties have low levels of self-esteem. Patten (1983: 44) concluded that "*when students have low self-esteem, they may have difficulty concentrating, remembering things, and handling problem solving tasks*" These characteristics of low self-esteem, as described by Patten (1983), can apply to both children with learning difficulties and depressed children.

It has been established that depression and learning difficulties in children share similar symptoms namely; poor self-concept, negative self-evaluation, impaired cognitive functioning, and hopelessness with regard to future ability. It may be hypothesized that these symptoms are congruent with Beck's (1976) model of the cognitive triad in depression.

2.6.4 Learned helplessness theory of depression

The learned helplessness theory of depression was first proposed by Seligman (1975). This model of depression stated that "*learned helplessness is caused by learning that responding is independent of reinforcement* (and) *the cause of depression is the belief that action is futile*" (Seligman, 1975: 93).

The school, an early source of the child's conceptualization of success or failure, may have a profound effect in the way the child views his or her academic achievements. Schooling can be an exacting experience for the young child and ones beliefs about ones academic performance determine how effective or helpless one feels. Belief systems may also be fostered by the interactions with significant others. For example, a child may believe that he or she is incapable of reading or spelling if he or she receives continued negative feedback and little encouragement from teachers. These beliefs may perpetuate a cycle of failure. Thus, the child who is not able to gain mastery over his or her educational achievement may believe that "*failure is insurmountable and success unattainable* (and therefore) *develop a helplessness stance that leads to decreased persistence*" (Kaslow et al., 1994: 108).

The child's pattern of failure may be misconstrued as the child having intellectual deficits or retardation (Seligman 1975) and he or she may be referred for special education services.

Seligman (1975: 155) further stated that children who fail "*may be forming higher-order cognition*(s) *that* (their) *responses are ineffective in general*".

In keeping with learned helplessness literature, motivational problems among children with learning difficulties are reported most frequently (Licht, 1983). According to Licht (1983) children with learning difficulties experience failure early in their school lives. This leads them to doubt their abilities and hence they reduce their efforts. This lack of effort may maintain a cycle of repeated failure which may be a precursor to learned helplessness.

Abramson, Seligman and Teasdale (1978) reformulated the learned helplessness theory to include the concepts of attributional or explanatory style. According to the reformulated model a person's attribution to or explanation of life events determines the outcome of depression. Depressed individuals explain their failures in terms of internal deficiencies (e.g. intelligence, and lack of effort) and view their successes as being beyond their control (e.g. fate).

Borkowski, Johnston and Reid (1987) noted that children with learning difficulties consider themselves incompetent in many academic tasks while "*attributing success instead to external factors such as ease of task, the teacher, or luck*" (p. 158). Similarly, Kistner, White, Haskett, and Robbins (1985) in a study of causal attributions of learning disabled and normally achieving children reported that learning disabled girls attributed their failures to internal factors namely, insufficient ability.

Children with learning difficulties seem to develop negative attributions about themselves and their achievements because they feel that they are incapable of meeting the expectations

of academic achievement. These children feel that academic achievement is onerous and therefore adopt a helpless stance.

2.7 The Ontogenesis of Depression in Children with Learning Difficulties.

There is some evidence that children with learning difficulties and children with depressive symptomatology share similar symptoms namely; low self-esteem, poor self-evaluations, social skills deficit, poor cognitive and social functioning, low levels of motivation, and being prone to academic failure. From the existing evidence it may be inferred that children with learning difficulties may be susceptible to depression or vice versa. This premise has not been adequately researched. Nevertheless, some studies (e.g. Hall and Haws, 1989; Colbert et al., 1982) support the view that children with learning difficulties may be vulnerable to depression. Several factors may account for this view.

The school is a challenging institution for the young child. He or she is expected to meet the academic expectations of his or her teachers and to display social competence with his or her peers. Failure to demonstrate these competencies may lead to referral for diagnostic evaluation (Schloss et al., 1994). The child may be diagnosed as having a learning difficulty and may be referred for special education. According to Montgomery (1990) the stigmatising effect of low academic achievement or of being labelled as having a learning difficulty may lead to depressive symptomatology.

The depressive condition may be further exacerbated by the attitudes that significant others (teachers, peers and parents) hold toward the child. Studies have indicated that teachers (Tur-Kaspa and Bryan, 1995) and peers (Bryan 1974, 1976) relegate the child with learning

difficulties to a lower status. This lower status may persist over time (see Bryan, 1976) and the child therefore feels rejected, develops lower self-esteem and poor self concept.

Rejection may lead to fewer social interactions. The child with learning difficulties may not be able to establish gratifying inter-personal relationships. Consequently, he or she may develop poor social skills (a condition associated with depression- see 2.6.2 Social Learning Theory of Depression).

Children with learning difficulties who lack prosocial skills and who feel rejected become subdued and adopt a passive role in the classroom (Montgomery, 1990). Montgomery (1990: 128) further states that *"they may be less responsive and less curious than other students* (and*) this may well be a learned phenomenon resulting from past unsuccessful learning experiences"*.

It seems ironical that the child with learning difficulties, being labelled and stigmatised and most vulnerable, does not receive the necessary support from significant others to help him or her overcome the psychological barriers of such a label.

Schools may *"reinforce the depressive symptoms by failing to provide reassurance, ... or to counter the students' tendency to withdraw"* (Schloss et al., 1994: 456). Without adequate and appropriate help the child with learning difficulties may develop depressive symptomatology or exacerbate a prevailing condition of depression.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The need for investigations into depression in children with learning difficulties has been argued in Chapters One and Two. The present study was conducted in the Durban area. This chapter describes the hypotheses, samples, instruments and methodology employed.

3.2 The Hypotheses

The following hypotheses were developed based on previous investigations in the field.

1. Children with learning difficulties will report more symptomatology of depression than children whose progress in the basic subjects (i.e. maths and english) is age appropriate.

2. There will be no statistically significant age or gender differences in the presentation of depressive symptomatology among children with learning difficulties.

3.3 The Respondents

The respondents were drawn from two primary schools in the greater Durban area. The schools were under the control of the Ex- House of Delegates. These schools offered both regular and remedial programmes. Children who were identified as having learning difficulties were offered remedial help in either self-contained classroom units or

resource/withdrawal units. The two schools were of similar size and socioeconomic composition.

No attempt was made to randomly sample from the population. Intact groups were used as a convenience. It can be argued also, that intact groups would be more representative of the broader populations of children with learning difficulties and those in the ordinary classes. In order to maintain homogeneity, children who received remedial help in the resource/withdrawal unit were excluded from the study. In this preliminary study it was decided to restrict participation to pupils of Indian descent.

The subjects were 200 children from standards one through three. The age of the participants ranged from 8 to 11 years. Children with learning difficulties (LD) constituted 84 (42%) of the subjects. These pupils were identified according to the criteria of the Department of Education and Culture, House of Delegates. The comparison group constituted 116 (58%) of the subjects. These were pupils in regular classes whose progress in the basic subjects was considered age appropriate.

Socioeconomic status data was obtained for the schools rather than for individual subjects. Both schools are situated in working class areas where, according to the principals of the schools, many families experience economic hardships.

Demographic information is presented in Tables 1 - 3.

Table 1 **Distribution by Gender**

Gender	LD	%	Comparison	%
Male	43	51.19	57	49.14
Female	41	48.81	59	50.86
Totals	84	100.00	116	100.00

Table 2 **Distribution by Age**

Age	LD	%	Comparison	%	Totals	%
8	15	17.86	28	24.14	43	21.50
9	19	22.62	49	42.24	68	34.00
10	26	30.95	22	18.97	48	24.00
11	24	28.57	17	14.65	41	20.50
Totals	84	100.00	116	100.00	200	100.00

Table 3 **Distribution of LD subjects by Age and Gender**

	Age							
	8	%	9	%	10	%	11	%
Gender								
Male	5	33.33	10	52.63	12	46.15	16	66.67
Female	10	66.67	9	47.37	14	53.85	8	33.33
Totals	15	100.00	19	100.00	26	100.00	24	100.00

3.4 The Instrument

The Children's Depression Inventory (CDI) (Kovacs, 1992) was used to assess the severity of depressive symptoms in children with and without learning difficulties. The CDI was chosen because it is *"currently the most widely used measure"* (Kazdin, 1990: 122) for depressive symptomatology in children. It can be administered individually or in group settings and the items can be presented orally. The CDI identifies several depressive symptoms e.g. negative mood, interpersonal problems, ineffectiveness, anhedonia, and negative self-esteem.

The CDI was developed from the Beck Depression Inventory and is suitable for persons aged 7 to 17 years (Kovacs, 1992). The instrument is a twenty-seven item self-report measure of depressive symptomatology. Items measure cognitive, affective and behavioural signs of depression (Kazdin, 1990). Each item has three alternative choices. Children are expected to choose the alternative which best describe how they felt in the past two week period. For example, the child may choose from *"I do not feel alone"*, *"I feel alone many times"*, and *"I feel alone all the time"*.

The items are scored 0 (absence of symptom), 1 (mild symptom) or 2 (severe symptom). Scores range from 0 to 54. A score of 11 and above has been used as an indication of mild depression (Goldstein et al., 1985). A cutoff score of 19 has been suggested as a measure for severe depression *"so as to minimize false positives"* (Kovacs, 1992: 41).

The CDI was initially normed on 39, eight- to thirteen- year old hospitalised patients and 127, ten- to thirteen- year old school based children. Further normative data was taken from a sample of 1266 public school students whose ages ranged from seven to sixteen (Finch, Saylor, and Edwards 1985). This study reported no significant age or gender differences.

Kovacs (1981) reported a high test-retest reliability (r = .72) on a sample of non-clinical school children. Studies (e. g. Kovacs, 1983 and Weiss & Weisz, 1988) have indicated that internal consistency of the CDI range from Cronbach's alpha 0.71 to 0.89. Semrud-Clikeman and Hynd (1991) reported CDI and clinicians rating of depression to correlate (r = .55).

3.5 Procedures

The Department of Education and Culture, Ex- House of Delegates, was approached by letter (See Appendix A) for permission to conduct the study in two schools classified as remedial centres. Once permission was granted the school principals were approached to discuss possible dates for the administration of the CDI. Principals were also briefed about the purposes and procedures of the study. School demographic data were obtained with regards to:

1. Total school population in standards 1 to 3.
2. Number of children receiving regular education.
3. Number of children receiving resource room based remedial education.

4. Number of children receiving self-contained remedial education.

5. Number of children who were not of Indian descent.

6. School socio-economic data.

From a school population of 392 children in standards 1 to 3 in the regular classes (comparison group), the following children were excluded:

34 - were either younger or older than 8 to 11 years.

83 - were not of Indian descent.

110 - were receiving resource room based remedial teaching. These pupils were excluded in order to keep the groups more homogeneous for the factors underconsideration.

In a population of 137 children who were receiving self-contained class based remedial therapy (LD group) the following exclusions took place.

19 - were older than 11 years.

23 - were not of Indian descent.

The children in the LD group were identified according to the school based classification of learning difficulties.

Parental permission (See Appendix B) was sought for participation in the study. A letter was sent to parents and guardians three weeks prior to the proposed date of the research, describing the proposed research and requesting permission for their child or ward to be included in the sample.

These letters were collected from the two school principals a week prior to the study being conducted. Thirty- four children who were refused parental permission for participation were excluded from the study. Arrangements were then made with the school principals for a suitable date for the administration of the CDI. The school principals kindly consented to arranging the children in groups of thirty or less for the ease of administration.

The CDI was administered during winter and as a result some children were suffering from colds. This may also be a reason for twenty-six children being absent on the day of administration.

The following table represents details of the sample.

Table 4: **Sample Distribution**

	LD	%	Comparison	%
Letters sent to parents/guardians	95	100.00	165	100.00
Permission not granted	3	3.16	31	18.79
Absent during administration	8	8.42	18	10.91
Total sample size	84	88.42	116	70.30

3.6 Administration of the CDI

The CDI (See Appendix C), a pencil and paper test, was administered by the researcher to children in both schools on consecutive days. Test sheets were colour-coded i. e. blue (boys) and pink (girls) for easier gender identification. Children were tested in groups of thirty or smaller with the comparison and LD groups separated. General instructions were given to the

children. To minimize any reading difficulties (especially in the LD group) and to maintain uniformity the items were read aloud to all the children. Each session, which included briefing and debriefing, lasted approximately fifty minutes.

3.7 Ethical Considerations

3.7.1 Briefing

During the briefing session children were told that they were going to answer questions about how they felt about themselves in the last two weeks. Specific details about depression were avoided in order to minimize researcher bias or influence children's responses. Children were made aware that this was not an academic test and that there were no right or wrong answers. The children were assured of the confidentiality of their answers. Once the children had filled in their responses the sheets were collected.

3.7.2 Debriefing

As an ethical consideration, the researcher decided to hold a debriefing session which followed immediately after the administration of the instrument. The children participated in a general discussion about their feelings after having taken the test. This was done in order to identify any emotional distress that a child may have suffered during the administration of the test. Discussion also centred around typical problems that they may be experiencing. General information on depression was provided together with how to recognise problems, what steps may be taken to solve their problems, and who to turn to for help. The children were strongly advised to immediately contact a friend, a teacher, the school principal or their parents or guardians if they were experiencing any emotional distress. The school principals were also requested to brief the teachers to be on the alert for signs of emotional distress among

children who had participated in the study. The researcher left with the assurance that if a child showed signs of emotional distress he would be contacted immediately.

3.8 Scoring of the CDI

The CDI test sheets were separated according to age and gender criteria. Scoring was done with the aid of a scoring stencil. Raw scores (See Appendix D) were then collated in terms of gender and age criteria and the results were then processed. These results are presented in the next chapter.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents the descriptive and inferential data of the investigation. The findings of the investigation are analysed in accordance with the hypotheses developed in Chapter Three. The Statistical Package for Social Sciences (SPSS/PC+, 1983) was used computing statistical analyses.

4.2 Distribution of Raw Scores obtained on the CDI

Raw scores on the Children's Depression Inventory (CDI), Kovacs (1992) range from zero (0) to fifty-four (54). An individual raw score on the CDI between 11 and 18 suggest mild depressive symptomatology. An individual raw score on the CDI of 19+ suggest severe depressive symptomatology.

The following graph represents the frequency of raw scores obtained on the CDI by the Comparison and the LD groups.

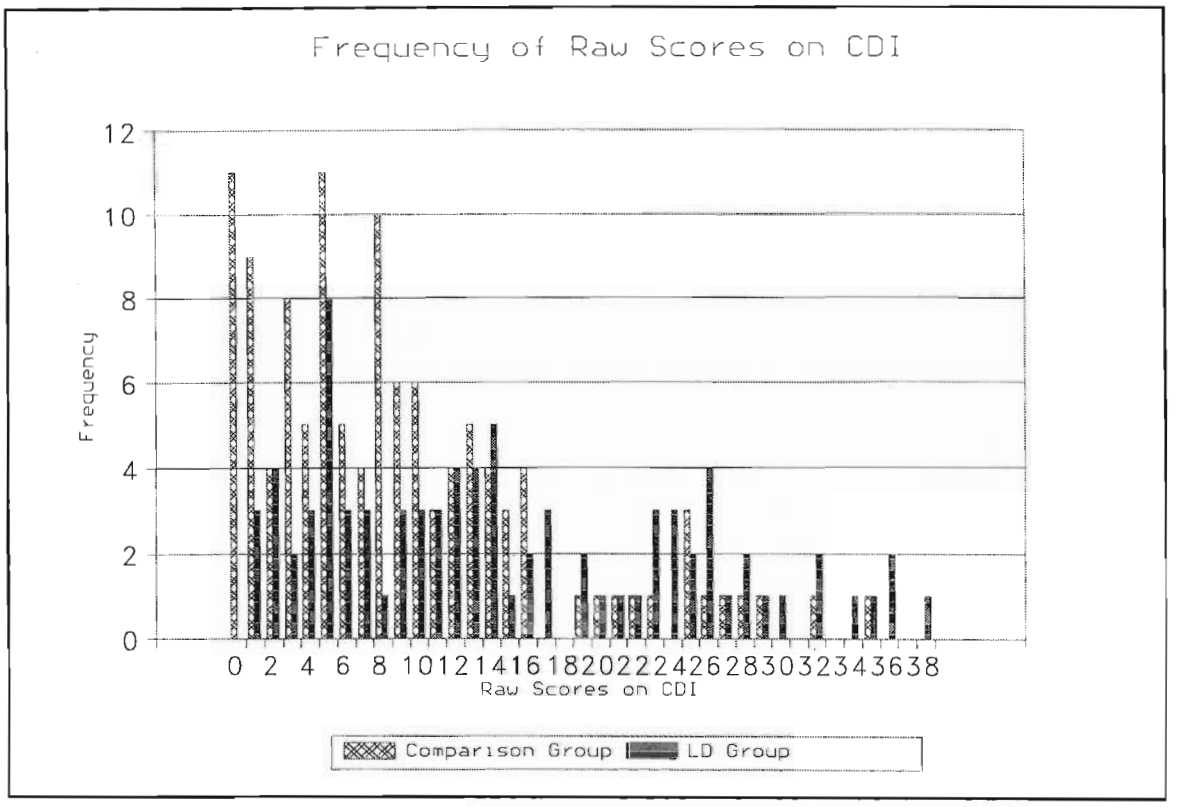

Figure 1:Frequency of Raw Scores on CDI by Group

	COMPARISON	LD
n	116	84
Mean	8.93	14.94
SD	7.9	10.07

The frequency of raw scores obtained on the CDI by the eight year old and eleven year old children in the LD group is represented in the following graph.

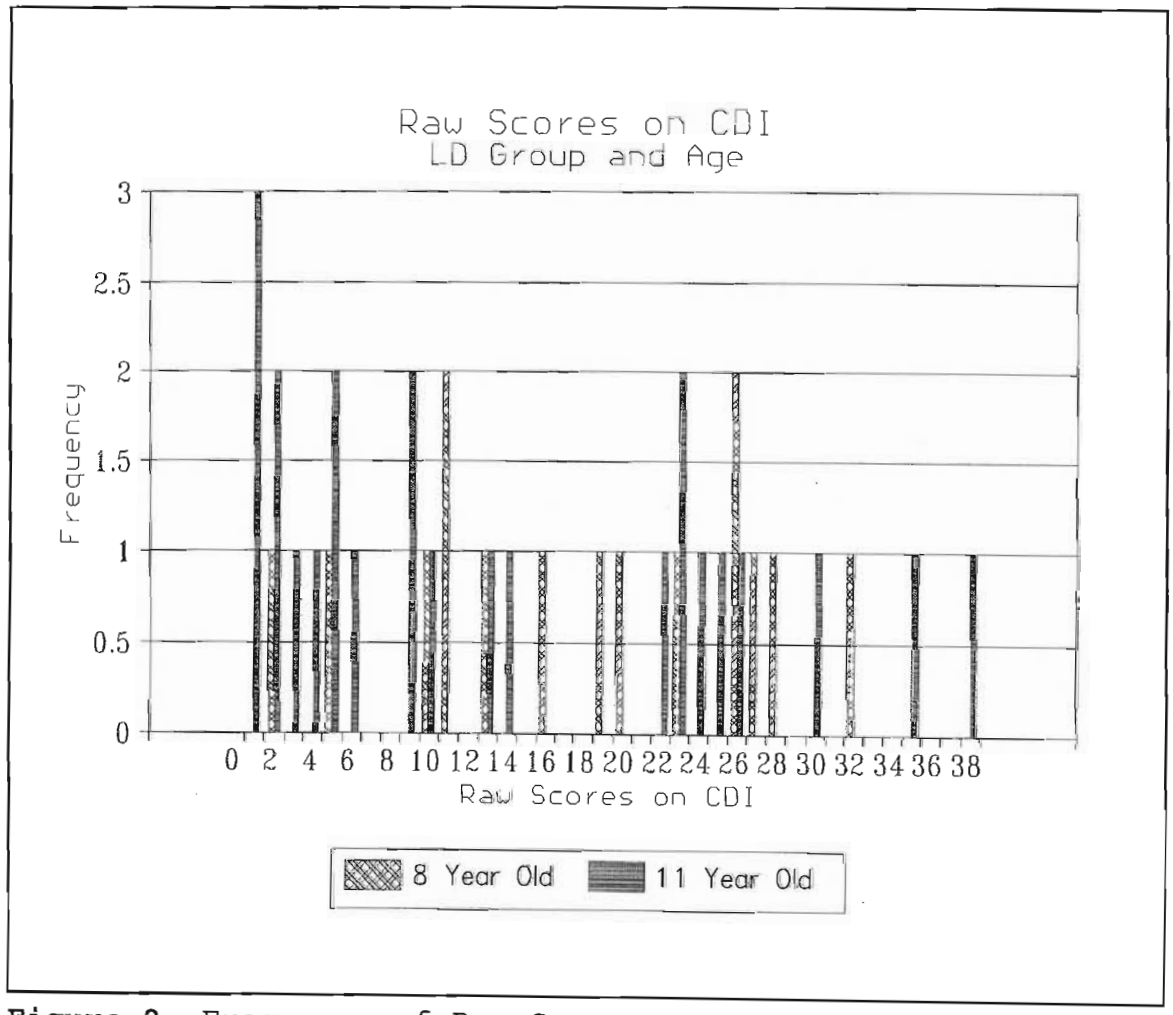

Figure 2 :Frequency of Raw Scores on CDI: LD by Age

	8 Year Old	11 Year Old
n	15	24
Mean	17.93	13.79
SD	9.07	11.74

The frequency of raw scores obtained on the CDI by males and females in the LD group is represented in the following graph.

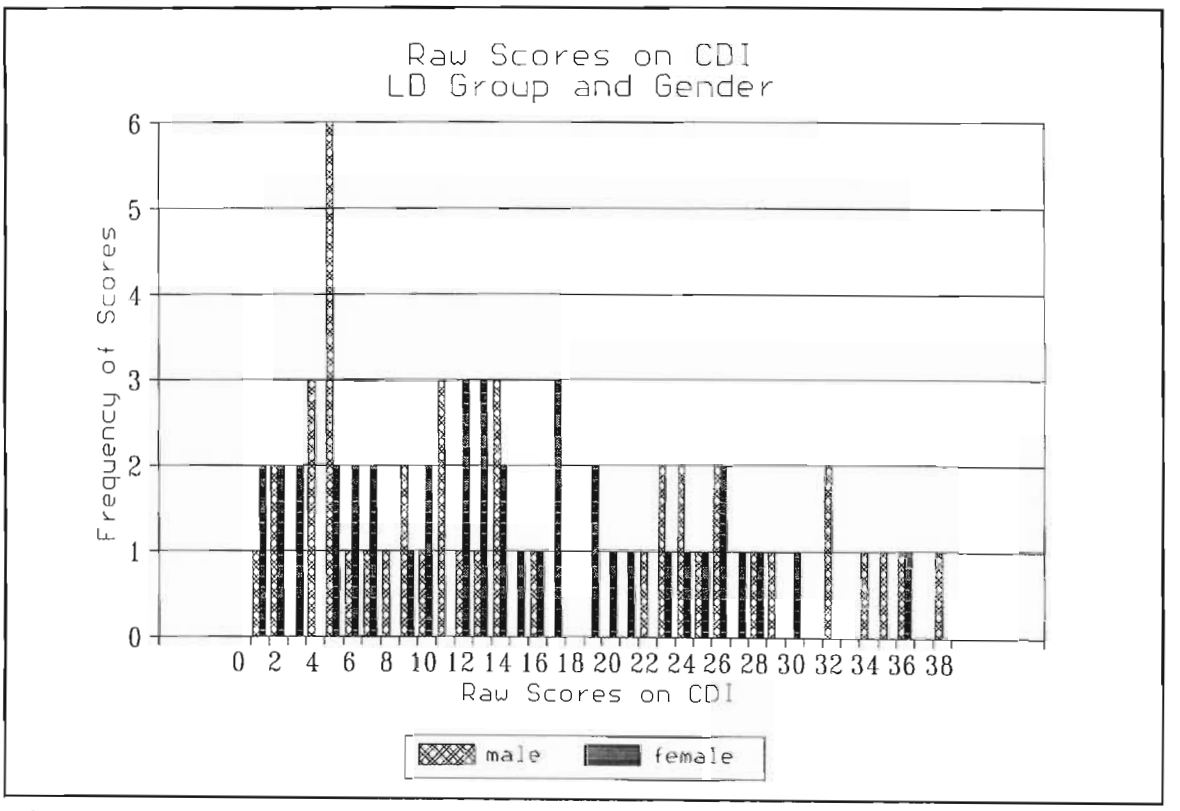

Figure 3: Frequency of Raw Scores on CDI:LD by Gender

	MALE	FEMALE
n	43	41
Mean	15.56	14.29
SD	10.30	7.98

4.3 Means and Standard Deviations for Raw Scores on CDI

Table 5 : **Means and Standards Deviation for LD and Comparison Group**

	Range	Mean	SD	n
LD	1-38	14.94	10.07	84
Comparison	0-36	8.93	7.90	116

The mean CDI score was substantially higher for children in the LD group than in the Comparison group. The LD group mean of 14.94 lies within the range of scores for mild depression.

Table 6 : **CDI Raw Scores: Means and Standard Deviations for LD group by Age**

Age	Mean	SD	n
8	17.93	9.07	15
9	14.79	9.29	19
10	14.38	9.72	26
11	13.79	11.74	24

All group means are within the range for mild depressive symptomatology. Children in the eight year age group had higher scores on the CDI than children in the other age groups. However, these differences are not statistically significant (see Table 9). Mean scores on the CDI tend to decrease as age increases. This suggests that children in the older groups report a slightly lower level of depressive symptomatology. It is possible that a study using larger groups would show statistically significant age differences.

Table 7 : **Means and Standard Deviations for LD group by Gender**

Gender	Mean	SD	n
Male	15.56	10.30	43
Female	14.29	7.98	41

Scores on the CDI show no statistically significant differences in terms of gender. (See Table 10)

4.4 Statistical Analyses of Raw Scores on CDI

Two separate analyses of variance (ANOVA) were performed on the data:

1) CDI scores of children with learning difficulties (LD) versus CDI scores of children in the Comparison group.
2) CDI scores of 8 and 11 year old children with learning difficulties.

Chi-square tests of significance were applied to the data with regard to gender differences in each level of depressive symptomatology (none/mild and severe).

Results of the first ANOVA indicate a statistically significant difference between LD and Comparison children's CDI scores. ($p < 0.01$)

Table 8 : **Analysis of Variance for CDI Score by Group**

Source of Variation	Sum of Squares	DF	Mean Square	F	Sign.of F
Group	1759.444	1	1759.444	22.692	.000
Residual	15352.151	198	77.536		
Total	17111.595	199	85.988		

The second ANOVA compared the CDI scores of eight year old and eleven year old children in the learning difficulties (LD) group. No statistically significant difference was indicated in the results. ($p > 0.05$)

Table 9 : **Analysis of Variance for LD by Age**

Source of Variation	Sum of Squares	DF	Mean Square	F	Sign. of F
Age	158.339	1	158.339	1.355	.252
Residual	4333.892	37	116.835		
Total	4481.231	38	117.927		

Chi-Square tests for Gender Differences in each Level of Depressive Symptomatology.

The data for depressive symptomatology were transformed into nominal data for the purpose of chi-square testing to examine the significance of differences between the genders. Chi-Square tests were performed on severity of depressive symptomatology and gender.

Following the criterion used in the manual (Kovacs, 1992), a raw score of 19 or more (obtained on the CDI) was used as an indication of severe depressive symptomatology. Scores were assigned to nominal categories of no/mild depressive symptomatology and severe depressive symptomatology. The following cross-tabulations were performed.

Table 10 : **Chi-Square for Gender and LD**

Level of Depr. Symptom.	Gender		
	Male	Female	Row Total
No/ Mild	27	28	55
Severe	16	13	29
Column Total	43	41	84

No/Mild Depressive Symptomatology

Chi-Square .09036

d.f 1

Probability .7637

Severe Depressive Symptomatology

Chi-Square .28107

d.f 1

Probability .5960

The results indicate that there are no statistically significant differences between the genders for depressive symptomatology.

CHAPTER FIVE

DISCUSSION OF RESULTS

5.1 Introduction

The statistical analyses described in Chapter Four produced results that are in support of the hypotheses stated in Chapter Three. In this chapter these results are discussed in the context of relevant literature and the findings of other researchers.

The purpose of this study is to examine the prevalence of depressive symptomatology among children with and without learning difficulties in two Durban schools and to study age and gender differences in depressive symptomatology among those with learning difficulties.

5.2 Depressive Symptomatology among Children With and Without Learning Difficulties

5.2.1 Prevalence of depressive symptomatology

The results of this study support the hypothesis that children with learning difficulties display significantly higher levels of depressive symptomatology than children without learning difficulties from comparable backgrounds. This finding is consistent with the findings of Goldstein et al., (1985); Hall and Haws, (1989); and Wright-Strawderman and Watson, (1992).

By employing a cut off score of 19 on the CDI (see Kovacs, 1992); 14 (12.07%) children in the comparison group (n = 116) and 29 (34.52%) children in the LD group (n = 84) met the criteria for severe depressive symptomatology. From these results it can be deduced that children with learning difficulties display far more depressive symptomatology than children in the ordinary education programme.

The high prevalence of depressive symptomatology among children with learning difficulties (34.52%) is comparable to the findings reported by Wright- Strawderman and Watson (1992)- (35.85%), Hall and Haws (1989)- (24%), and Goldstein et al. (1985)- (26%) but is considerably higher than the finding reported by Stevenson and Romney (1984)- (14%). However, Stevenson and Romney (1984) concede that the 14% reported in their study may be an underestimation of the true prevalence because almost half of the children (46%) in their expected sample were refused permission by parents and teachers to participate in their study. The prevalence rate of 12.07% in the comparison group compares favourably with Kovacs (1992) predicted rate of 12.14% in normative samples in the USA and Canada.

The means and standard deviations obtained in this study are comparable with those of similar studies. These are presented in the following table.

Table 11 : **Comparison of Means and Standard Deviations**

	Comparison		LD	
Studies	Mean	SD	Mean	SD
This study	8.93	7.90	14.94	10.07
Goldstein et al. (1985)	*	*	13.78	7.37
Hall and Haws (1989)	8.24	5.43	13.34	7.37

* No comparison group was used in the Goldstein et al. (1985) study.

5.2.2 Depressive symptomatology and causality

The results of this study indicate that the prevalence of depressive symptomatology is remarkably high among children with learning difficulties. Brumbach et al.(1980) suggest that depression is quite common among children whose problems are assumed to be primarily learning difficulties. This view is supported by Colbert et al. (1982) who suggest that the onset of depression is primary to a diagnosis of a learning difficulty. The design of the present study precludes it from establishing causality and therefore it is not possible to establish whether the onset of depressive symptomatology is primary or secondary to the learning difficulty. However, from the results of this study it can be concluded that depression and learning difficulties co-exist as conditions that need special attention.

5.2.3 Assessment of children with learning difficulties.

The assessment of children with learning difficulties in most school systems seems to focus mainly on academic potential (measured by an intelligence test), academic ability (measured by formal and/or informal tests of mathematics and language), and perceptual and motor skills.

The assessment of the affective domain or the psycho-social aspects of the condition is either neglected or overlooked. One possible reason for its exclusion could be that assessors are not aware of the affective aspects of learning difficulties. Another reason is that remedial teachers are not trained to identify affective conditions.

The present study found that 60.71% of children with learning difficulties report either mild or severe depressive symptomatology. This finding concurs with the 61% reported by Goldstein et al., (1985). In view of these findings the writer supports the suggestion by

Brumbach and Staton (1983) that children who are diagnosed as having a learning difficulty should be routinely assessed for depression. It may be that children are misdiagnosed as LD (Colbert et al., 1982) and are placed in LD classes although their primary condition may be depression. If depression is the primary cause for the poor school performance it can be assumed then that the child's academic performance may improve once depression is ameliorated. There may be no need therefore, for a placement in an LD programme. Placement in a LD programme, no matter how well meaning, may be counter-productive and may worsen the child's self-concept and thereby exacerbate depression.

In view of the finding of this study, that high levels of depressive symptomatology are present in children with learning difficulties, it seems imperative that both affective and academic domains are assessed to facilitate better decisions about placement and treatment.

5.2.4 The role of school personnel

The results of this study suggest that school psychologists and school personnel should play a vital role in recognising depressive symptomatology in children with learning difficulties. However, many teachers are not trained to identify or treat depressive symptomatology in children. The finding in this study suggests that methods for the identification of depressive symptomatology in children with learning difficulties and the implementation of suitable intervention programmes should be included in training programmes for support teachers.

Furthermore, research has suggested that depression is a precursor to suicide (Hayes and Sloat, 1988; Livingston, 1985; Pfeiffer, 1986; and Colbert et al., 1982). Considering that children with learning difficulties display high levels of depressive symptomatology it would seem that they are at higher risk for suicide than the children in the regular education

programmes. Early identification of depressive symptomatology may help prevent suicide or parasuicide attempts. Teachers must therefore be trained to recognise these precursors to suicide.

An awareness of the presence of depressive symptomatology in children with learning difficulties may also help the support teacher provide the necessary emotional support for the child. Kasik, Sabatino and Spoentgen (1987) suggest that there is a need for an attitude for psycho-social nurturance from those that interact with these children. In an environment of emotional support and psycho-social nurturance the child may become more accepting of his or her learning problem and may develop better coping skills and the depressive condition can be abated.

5.2.5 Treatment of depressive symptomatology in children with learning difficulties.

It is apparent from the literature reviewed that depression in children with learning difficulties is a serious and debilitating disturbance that can affect their school performance and their self-concept. It follows therefore that an amelioration of the symptoms of depression may help improve the child's academic performance and/or help the child come to terms with his or her learning difficulty.

Treatment of childhood depression has been based on *"unidimensional models of adult depression"* (Stark, Rouse and Kurowski, 1994: 275). Therefore, long term psychotherapy (as with the treatment of adult depressives) would be considered most beneficial and an ideal choice of treatment. This would however, be time consuming and expensive. Furthermore, it would require adequately trained personnel to provide the therapeutic intervention.

Given that depression reduces the child's capacity for learning (Colbert et al., 1982), it may be that the capacity for learning may increase once the symptoms of depression are treated. Graves and Lahey (1983) suggested mood induction or emotional remediation as a simple and inexpensive strategy for ameliorating depressive symptomatology and increasing learning capacity. This technique requires little training and can be used by the remedial teacher to good effect. "*Mood induction techniques involve reading short passages that encourage the subject to think about either happy, sad, or neutral content*" (Goldstein and Dundon, 1987: 244). Mood induction can therefore be positive, negative, or neutral.

Yasutake and Bryan (1995) tested the manipulation of mood states and found that positive mood induction increased task performance in children with learning difficulties. In a review article Yasutake and Bryan (1995) concluded that "*inducing positive affect facilitates a learning performance of students with learning difficulties*" (p. 331). While support for this conclusion is lacking because of the few child studies in this field, research with adult depressives show that depressive symptoms such as cognitive impairment diminish once mood improves. Such findings may lend support to the hypothesis that depression is primary to a diagnosis of learning difficulties.

However, it cannot be assumed that a programme of positive mood induction will improve the academic skills of all children with learning difficulties. Some children may continue with academic impairments although depressive symptomatology may have been ameliorated. These children may have learning difficulties that precede their affective problems (Mokros, Poznanski and Merrick, 1989). Such findings may lend support to the hypothesis that a diagnosis of learning difficulties leads to the onset of depressive symptomatology.

Besides academic skills deficit, it has been established that many children with learning difficulties exhibit social skills deficit (see Chapter Two). Stark et al. (1994) have suggested the remediation of social skills deficit to help the child with learning difficulties decrease depressive symptoms. While academic skills may not be enhanced, it has been hypothesized that an improvement in social skills may help the child come to terms with his or her learning difficulty. The child may be able to enhance his or her self-concept and thereby reinforce better relationships with peers and significant others.

The assessment and treatment of depressive symptomatology in children with learning difficulties lacks empirical support. From the few studies in the field it is difficult to draw firm conclusions about the implementation of adequate treatment programmes for children with learning difficulties. Suffice it to say however, that learning difficulties and depression are often co-morbid conditions and therefore children with learning difficulties warrant appropriate attention. Empirical evidence is needed also to test the hypotheses alluded to in the fore-going paragraphs.

5.3 Age Differences and Depressive Symptomatology in Children With Learning Difficulties

The results of this study show no statistically significant interaction for age and depressive symptomatology among children with learning difficulties. Similar findings have been reported by Wright-Strawderman and Watson (1992), Hall and Haws (1989) and Goldstein et al. (1985). The results of this study support the hypothesis promulgated in Chapter Three: that there will be no statistically significant age difference in the presentation of depressive symptomatology among children with learning difficulties.

It should be noted that children in the eight year old group obtained a mean CDI score of 17.93; a score which is close to the cutoff score (19) for severe depressive symptomatology. This suggests that younger children may be more severely depressed than older children. This finding has implications for the assessment and treatment of young children with learning difficulties. It is recommended therefore, that a young child who is diagnosed as having a learning difficulty must be prepared psychologically;

1. to accept his or her condition and
2. for possible placement in a self-contained class or a withdrawal class.

This may help the child accept his or her condition and to adapt to the possibility of being in a new environment thereby reducing, if not eliminating, depressive symptomatology in the young child.

The results of this study suggest that as age increases CDI mean scores decrease. A similar trend was reported by Huntington and Bender (1993) and Hall and Haws (1989). Huntington and Bender (1993) suggest that the display of greater depressive symptomatology among younger children could be a developmental lag in maturity which makes them more vulnerable to depression.

Hall and Haws (1989) conclude that younger children with learning difficulties show more depressive symptomatology because they greater difficulty in accepting "*separation from peers, special education placement* (and being in a) *separate special class*" (p. 363). This conclusion lends support to the writer's earlier recommendation that the young child should be psychologically prepared for the acceptance of his or her condition.

The finding that there is no statistically significant interaction between age and depressive symptomatology among children with learning difficulties must be taken as tentative and viewed with caution because of the small sample size of this study. Epidemiological data and further replication with larger sample sizes are required before any firm conclusions can be reached.

5.4 Gender Differences and Depressive Symptomatology in Children With Learning Difficulties

Males obtained sightly higher mean CDI scores than females (15.56 : 14.29), but no statistically significant interaction was found for gender and depressive symptomatology among children with learning difficulties. Similar findings have been reported by other authors e.g., Stevenson and Romney (1984); Wright-Strawderman and Watson (1992) and Lefkowitz and Tesiny (1985).

Although no statistically significant differences were noted in the afore-mentioned studies some trend reversals were observed. Lefkowitz and Tesiny (1985) reported higher mean scores for females. Their finding is in keeping with results reported among adolescent and adult populations.

In adult populations it has been generally found that depression is more predominant among females (Kazdin, 1990). However, gender studies among children in both clinical and non-clinical samples report no statistically significant difference (Reynolds, 1985; 1990). It would appear therefore that gender differences only emerge during adolescent and adult years. Further epidemiological and empirical data is needed to support this assertion.

The findings of this study however, support the hypothesis that there will be no statistically significant gender difference in the presentation of depressive symptomatology among children with learning difficulties.

CHAPTER SIX

CONCLUSION

6.1 Summary of Findings

The findings of the present investigation support the hypotheses formulated by the writer. These findings also endorse the view held by several authors that children with learning difficulties display higher levels of depressive symptomatology than children in regular education programmes.

In keeping with the results reported by other authors (Lefkowitz and Tesiny, 1985; Hall and Haws, 1989; Wright-Strawderman and Watson, 1992), no statistically significant age or gender differences were noted. An age trend was observed i.e. younger children with learning difficulties display higher levels of depressive symptomatology than older children, though this difference was not statistically significant.

6.2 Implications of Findings

The present study supports the findings of other authors and provides evidence that children with learning difficulties have problems associated with both affect and cognition. Notwithstanding this evidence it seems that psychologists and educators struggle to identify these affective conditions and intervene appropriately. It seems imperative that psychologists and educators acknowledge the presence of depressive symptomatology in these children and that relevant programmes of intervention are developed and implemented.

In order to intervene appropriately educators need to understand the interplay between the emotional and cognitive factors in these children. Therefore teacher training policies at national level need to take cognisance of this. These policies should not only address the

initial training of special educators but should also include appropriate in-service training for existing special educators.

Prospective teachers of pupils with learning difficulties should be able to identify and understand some of the affective variables in these children. Teachers need to be aware that depression can be insidious. Hence affective conditions may be overlooked in the seemingly quiet child. Further, teachers need to understand depression in process terms and develop different criteria for evaluating the impact of educational programmes. Therefore, training programmes must include strategies to identify depression in children. Teacher training programmes must also include strategies that could be used to ameliorate affective conditions.

An understanding of these factors i.e. depression and cognition, may help teachers to satisfy the children's unmet emotional needs and thereby provide better pastoral care for their charges. One of the positive outcomes of this understanding may be that it may help prevent recidivism. Also, the children with learning difficulties may be able to accept their condition more easily.

The findings of this study also impact on the assessment of children with learning difficulties. Educational and school policies need to be revised to include an assessment of both affective and cognitive aspects of these children. An assessment of this nature may help identify the different levels of symptomatology of one or both conditions. Curricular programmes can then be devised to include treatment of affective conditions. Hence resources can be utilized in a more appropriate and beneficial way to suit the individual and/or group needs of the children with learning difficulties.

The findings of this study are to be communicated to the principal and staff of the schools concerned at a meeting to be scheduled early in 1997. The writer will undertake to provide guidance in curricular development and implementation.

6.3 Strengths and Limitations of this Study

The writer was able to achieve procedural consistancy with accounts of other authors. This was possible because of the co-operation of the principal and staff of the schools concerned. As a result there were few, if any, procedural problems during this study.

As an ethical consideration a session on briefing and debriefing was included in this study. A review of the relevant literature indicates that this ethical consideration is either not reported or sadly neglected in the various studies that have been undertaken.

In spite of efforts to make this study as rigorous as possible some limitations were noted.

This study employed only one instrument to measure depressive symptomatology. Thus cross validations with other instruments were not possible and the writer had to rely on established validity of the instrument used as reported by other authors. One disadvantage of the instrument used is that it measures only severity of symptomatology. It is perhaps more appropriate to measure both severity and duration of depressive symptomatology so that firm conclusions can be drawn about depressive conditions in children with learning difficulties.

A further limitation of the present study is that the assessment of the severity of depressive symptomatology was based on self-reports. While it has been established that children are

reliable reporters of their symptomatology (see Kazdin and Petti, 1982) the reliability and validity of the study may have been enhanced by parent and teacher observations.

The generalisability of the findings may be limited by the use of one ethnic group in the sample. However, it can be argued that the criteria for the identification of both depressive conditions and learning difficulties are neither culture nor race specific. Similar criteria have been used to identify children with learning difficulties across the different ethnic groups. The findings of this study may therefore be generalised if some caution is applied. Systematic replication using other ethnic groups, younger and older samples, and children with other disabilities will reveal the extent to which these findings are generalisable.

The sample size in the present study appears small. It is expected that larger samples, especially across the different age groups, will certainly increase the reliability of the findings. However, for logistic reasons only two schools were included in the present study and this provided practical constraints to obtaining a larger sample. Further, this study is not aimed at providing conclusive epidemiological data.

6.4 Suggestions for Future Research

Childhood depression, it is widely felt, is analogous to adult depression (Kazdin, 1990; Angold, 1988; Kovacs and Beck, 1977). Research in childhood depression has therefore been scant because many studies of adult depression have been adopted and applied to child conditions. However, it is apparent that the display of depressive symptomatology among children is different to that of adults (Weinberg et al., 1973; Reynolds, 1990). It becomes essential therefore that these unique features are addressed in future research.

Since its recognition as a debilitating condition in the early 1960's the terms "learning difficulties" and "learning disabilities" have undergone various definitional changes. The lack of an acceptance of a single definition has lead to much confusion in the understanding of the concept.

While it has been argued that research aimed at establishing a single operational definition will help uncloud some of the existing confusion (Hammill, 1990; Shaw et al., 1995), the complexity of the issues and the range of individual differences occurring in classes for children with learning difficulties suggest that a single definition (however desirable) would have little operational utility. These individual differences should be acknowledged and research should focus therefore on developing curricular programmes to consider these differences.

Theories of child development have tended to distinguish between affect and cognition. Accordingly, affect and cognition have been considered as separate phenomena. Subsequently, research in this area has been hampered by a lack of an acceptable frame of reference. This has probably led to a dearth of research in respect of the interplay of affect and cognition. Future research should focus on establishing an adequate theoretical framework to understand this interplay.

It is increasingly accepted that depressive symptomatology and learning difficulties are correlated. However, the few studies in the field have focused on small samples. In order to provide reliable results future researchers need to provide epidemiological data. Such data may validate some of the hypotheses and conclusions about the impact of affect on cognition.

Research in the field of depressive symptomatology and learning difficulties has focused in the main on establishing incidence levels. The treatment of depressive symptomatology has been overlooked. Cognitive intervention, as a technique, has proven successful in the treatment of adult depressives. This and other techniques, such as mood induction, need to be carefully assessed as treatment strategies for ameliorating depressive conditions in children with learning difficulties.

Further, treatment issues need to focus on providing teachers with adequate skills to help children deal with their depressive conditions. Studies in this area should also look at incorporating treatment for depressive symptomatology as part of the design and implementation of curricular programmes for children with learning difficulties.

Finally, future research needs to focus on the interplay of depressive symptomatology and other variables such as self-concept, attributional style, anxiety, and suicidal ideation in children with learning difficulties. Of particular interest should be suicidal ideation and learning difficulties. While suicide and parasuicide are uncommon among children, it has been established that it is they are more common among adolescents with learning difficulties (Hayes and Sloat, 1988). Research should also address preventive issues.

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APPENDIX : A

Republic of South Africa
Republiek van Suid-Afrika

EDUCATION AND CULTURE SERVICE
ONDERWYS EN KULTUURDIENS

(EX ADMINISTRATION: HOUSE OF DELEGATES)
(EX ADMINISTRASIE: RAAD VAN AFGEVAARDIGDES)

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Victoria Embankment 17
Private Bag X54323
Privaatsak
DURBAN
4000

Ref. No. / Verw. No. A 10/29/2/11

Enquiries / Navrae H. Rambehari

1994 -05- 26

Mr S. Penchaliah
97 Statesman Drive
Havenside
Chatworth
4092

Sir

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL SCHOOLS
Your letters dated 94-03-31 and 94-05-17 have reference

1. Permission is hereby granted to you to conduct your research at the 2 schools indicated in your letter provided that :

1.1 prior arrangements are made with the Principals concerned;

1.2 participation in the research by pupils is on a voluntary basis;

1.3 completion of questionnaires is done outside normal teaching time and;

1.4 all information pertaining to pupils is treated confidentially and used for academic purposes only.

2. Kindly produce a copy of this letter when visiting schools.

3. The Department wishes you every success in your research and looks forward to receiving a copy of the findings.

Yours faithfully

Rambehari

EXECUTIVE DIRECTOR

940525/research/lp

APPENDIX : B

97 STATESMAN DRIVE
HAVENSIDE
CHATSWORTH
4092

16 JUNE 1994

Dear Parent/Guardian

I am presently completing a Masters Programme in Educational Psychology. A study involving primary school pupils is an essential aspect of the programme.

The Deputy Director,in the Department of Education & Culture has granted me permission to conduct my study at the school that your child/ward is attending.

The purpose of this study is to investigate the effects of depression and its implications for educational outcomes.The study will entail the administration of a questionnaire.

It would be appreciated if you could grant permission for your child/ward to participate in this study.You are assured that all information obtained from the survey would be kept strictly confidential.

Your co-operation is greatly appreciated.

S.Penchaliah

----------DETACH AND RETURN----------

The Principal

I,_____(full name) the parent/guardian of

_____ std____ hereby grant/refuse permission for

my child/ward to participate in the study.

_____ _____

Signature of parent/guardian Date

CDI Name:_____ Age:_____ Birthdate:_____

Std.:_____ Sex:_____ Today's date:_____

APPENDIX : C

Item 1
- ☐ I am sad once in a while.
- ☐ I am sad many times.
- ☐ I am sad all the time.

Item 2
- ☐ Nothing will ever work out for me.
- ☐ I am not sure if things will work out for me.
- ☐ Things will work out for me O.K.

Item 3
- ☐ I do most things O.K.
- ☐ I do many things wrong.
- ☐ I do everything wrong.

Item 4
- ☐ I have fun in many things.
- ☐ I have fun in some things.
- ☐ Nothing is fun at all.

Item 5
- ☐ I am bad all the time.
- ☐ I am bad many times.
- ☐ I am bad once in a while.

Item 6
- ☐ I think about bad things happening to me once in a while.
- ☐ I worry that bad things will happen to me.
- ☐ I am sure that terrible things will happen to me.

Item 7
- ☐ I hate myself.
- ☐ I do not like myself.
- ☐ I like myself.

Item 8
- ☐ All bad things are my fault.
- ☐ Many bad things are my fault.
- ☐ Bad things are not usually my fault.

Item 9
- ☐ I do not think about killing myself.
- ☐ I think about killing myself but I would not do it.
- ☐ I want to kill myself.

Item 10
- ☐ I feel like crying every day.
- ☐ I feel like crying many days.
- ☐ I feel like crying once in a while.

Item 11
- ☐ Things bother me all the time.
- ☐ Things bother me many times.
- ☐ Things bother me once in a while.

Item 12
- ☐ I like being with people.
- ☐ I do not like being with people many times.
- ☐ I do not want to be with people at all.

Item 13
- ☐ I cannot make up my mind about things.
- ☐ It is hard to make up my mind about things.
- ☐ I make up my mind about things easily.

Item 14
- ☐ I look O.K.
- ☐ There are some bad things about my looks.
- ☐ I look ugly.

Remember to fill out the other side

APPENDIX D

RAW SCORES

Children with Learning Difficulties

Age	Eight		Ni e		Ten		Eleven	
Gender	M	F	M	F	M	F	M	F
	10 11 12 26 32	2 5 13 16 19 20 23 26 27 28	5 5 7 11 13 14 16 28 34 36	6 6 9 10 12 12 17 19 21	2 4 4 5 5 8 12 14 24 25 29 32	3 5 7 7 12 13 14 14 15 17 17 24 26 36	1 2 4 5 5 6 9 9 14 22 23 23 24 26 35 38	1 1 2 4 10 13 25 30
Total	5	10	10	9	12	14	16	8

RAW SCORES

Comparison Group

Age	Eight		Nine		Ten		Eleven	
Gender	M	F	M	F	M	F	M	F
	0	0	0	0	2	0	0	0
	1	0	1	0	2	7	0	9
	3	3	1	0	3	8	1	15
	4	4	1	1	5	12	3	15
	5	4	3	1	6	12	5	25
	9	5	3	1	8	12	5	26
	10	5	3	1	8	16	5	
	13	8	6	2	8		9	
	13	8	7	3	10		13	
	16	8	7	4	11		22	
	29	9	8	4	13		25	
		9	9	4	14			
		10	10	5	15			
		10	11	5	25			
		11	12	5				
		14	16	6				
		14	19	6				
			20	6				
			32	7				
			35	8				
				8				
				10				
				13				
				14				
				16				
				21				
				23				
				27				
				28				
Total	11	17	20	29	15	7	11	6